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| APPLICATION NO.         | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|---------------------|------------------|
| 09/937,344              | 02/14/2002  | Egon Schulz          | 449122010700        | 7966             |
| 29177                   | 7590        | 12/12/2007           | EXAMINER            |                  |
| BELL, BOYD & LLOYD, LLP |             |                      | MILLER, BRANDON J   |                  |
| P.O. BOX 1135           |             |                      | ART UNIT            | PAPER NUMBER     |
| CHICAGO, IL 60690       |             |                      | 2617                |                  |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 09/937,344             | SCHULZ, EGON        |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Brandon J. Miller      | 2617                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 24 September 2007.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-8 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 24 September 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.<br><br>   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### *Response to Amendment*

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation “the channel resources in each having at least one of different spread-spectrum codes, different code groups, different frequencies and different midambles” in lines 4-6. This limitation does not particularly point out and distinctly claim what the channel resources or in. Therefore, the claim is rendered indefinite for distinctly claim the subject matter which applicant regards as the invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raitola et al. (US 6,317,418 B1) in view of Gorsuch et al. (US 6,388,999 B1).

Regarding claim 1 Raitola teaches a method for assigning channels for radio transmission between a subscriber station and a base station of a radio communication system (see col. 5, lines 20-23 and col. 11, lines 1-3). Raitola teaches assigning a plurality of channel resources to one subscriber station for one transmission direction via a common channel description transmitted to the subscriber station (see col. 10, lines 63-67). Raitola teaches a channel description that includes information about utilization of the channel resources during the radio transmission, which specifies an order of the transmission of data for the one transmission direction (see col. 11, lines 1-3). Raitola does not specifically teach wherein the channel resources have at least one of different spread-spectrum codes, different code groups, different frequencies and different midambles. Gorsuch teaches channel resources having at least one of different spread-spectrum codes, different code groups, different frequencies and different mid-amble (see col. 6, lines 7-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Raitola adapt to include wherein the channel resources have at least one of different spread-spectrum codes, different code groups, different frequencies and different

midambles because both references teach methods for determining how to allocate channels for data transmission (see Raitola, col. 5, lines 20-23 and col. 11, lines 1-3 and Gorsuch, col. 3, lines 62-66) and for systems using CDMA such as the ones in Raitola and Gorsuch (see Raitola, col. 5, lines 7-8 and Gorsuch, col. 3, lines 62-66) data transmissions are encoded with one of a number of different assignable codes.

Regarding claim 2 Raitola teaches utilization of channel resources that is specified by the order of the information on each of the channel resources within the channel description (see col. 11, lines 1-3).

Regarding claim 3 Gorsuch teaches utilization of channel resources specified by information relating to at least one of timeslots assigned, to spread-spectrum codes, and to assigned frequencies (see col. 6, lines 8-15).

Regarding claim 4 Raitola and Gorsuch teach a device as recited in claim 1 except for sending a coherent channel description as a message from the base station to the subscriber station, wherein an uplink and downlink channel are described one after another. Raitola does teach sending coherent channel descriptions, wherein channels are described one after another (see col. 10, lines 65-67). Gorsuch does teach sending coherent channel assignment information from the base station to the subscriber station, wherein an uplink channel and a downlink channel are described one after the other (see col. 7, lines 40-46). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include sending a coherent channel description as a message from the base station to the subscriber station, wherein an uplink and downlink channel are described one after another because this

would allow for a more efficient method of channel allocation that compensates for expansion and contraction of data traffic loading.

Regarding claim 5 Raitola and Gorsuch teach a device as recited in claim 1 except for sending an uplink channel and a downlink channel as separate messages from the base station to the subscriber station. Gorsuch does teach sending an uplink channel and a downlink channel as separate communications from the base station to the subscriber station (see col. 5, lines 26-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include sending an uplink channel and a downlink channel as separate messages from the base station to the subscriber station because this would allow for a more efficient method of channel allocation that compensates for expansion and contraction of data traffic loading.

Regarding claim 6 Raitola and Gorsuch teach a device as recited in claim 1 except for sending an uplink channel and a downlink channel in a common channel description as a message, a flag indicating parts of the description which relate to the uplink channel and to the downlink channel. Raitola does teach sending coherent channel descriptions (see col. 10, lines 65-67). Gorsuch does teach an urgency factor indicating the need to transmit data and based upon the urgency factor sending an uplink and a downlink channel description (see col. 7, lines 34-46). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include sending an uplink channel and a downlink channel in a common channel description as a message, a flag indicating parts of the description which relate to the uplink channel and to the downlink channel because this would allow for a more

efficient method of channel allocation that compensates for expansion and contraction of data traffic loading.

Regarding claim 7 Raitola teaches wherein a case where one channel is changed, the description of this channel is sent (see col. 11, line 1 and col. 12, lines 1-3).

Regarding claim 8 Raitola teaches a base station for a radio communication system comprising a facility to assign channels for a radio transmission with one subscriber station for one transmission direction (see col. 5, lines 20-23 and col. 11, lines 1-3). Raitola teaches wherein the facility transmits a common channel description to the subscriber station for assigning a plurality of channel resources for the radio transmission (see col. 10, lines 63-67). Raitola teaches wherein the facility generates a channel description that includes information about utilization of the channel resources during the radio transmission, which specifies an order of the transmission of data for the one transmission direction (see col. 11, lines 1-3). Raitola does not specifically teach wherein the channel resources have at least one of different spread-spectrum codes, different code groups, different frequencies and different midambles. Gorsuch teaches channel resources having at least one of different spread-spectrum codes, different code groups, different frequencies and different mid-ambles (see col. 6, lines 7-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device in Raitola adapt to include wherein the channel resources have at least one of different spread-spectrum codes, different code groups, different frequencies and different midambles because both references teach methods for determining how to allocate channels for data transmission (see Raitola, col. 5, lines 20-23 and col. 11, lines 1-3 and Gorsuch, col. 3, lines 62-66) and for systems using CDMA such as the ones in Raitola and Gorsuch (see Raitola, col. 5,

lines 7-8 and Gorsuch, col. 3, lines 62-66) data transmissions are encoded with one of a number of different assignable codes.

***Claim Objections***

3. Claim 6 is objected to because of the following informalities: Claim 6 appears to have grammatical errors in line 2-3, which read “sending an uplink channel and a downlink channel in a common channel description as a message, a flag indicating parts of the description”. Appropriate correction is required.

***Response to Arguments***

4. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Forssell et al. Patent No.: US 7,227,839 B2 discloses resource allocation in packet-format communication.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



November 27, 2007



George Eng  
GEORGE ENG  
SUPERVISORY PATENT EXAMINER